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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/017,328

12/14/2001

Mario Tenua

2527-1A1

1143

7590

04/22/2004

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EXAMINER

NAFF, DAVID M

ART UNIT

PAPER NUMBER

1651

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/017,328

Applicant(s)

TENUTA ET AL.

Examiner

David M. Naff

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1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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DETAILED ACTION

This office action is supplemental to the office action of 4/16/04.

The following 35 U.S.C. 103(a) rejection replaces the 35 U.S.C. 103(a) rejection in the office action of 4/16/04

Claim Rejections - 35 USC § 103

Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blodgett et al (newly applied) in view of Cooley (6,300,282 B1) and Schisler et al (5,783,411) (newly applied), and if necessary in further view of Menzies et al (newly applied).

The claims are drawn to a method of controlling soilborne pathogens in soil having a carbon content of less than 1.7% by weight by adding a nitrogen containing material and an agent to raise the pH of the soil to above 8.5. Claim 5 requires the agent for raising the pH to be selected from agents including calcium hydroxide.

Blodgett et al disclose (page 271, Figure 2, and page 272) that as pH increased from 7.2 to 9.2, the amount and severity of scab decreased when growing potatoes in sandy loan soil. Additionally, when a soil heavily infected with potato scab is limed ($\text{Ca}(\text{OH})_2$) to raise the pH to 8.5, 47% of potatoes were clean, and when limed to pH 9.0, 91% of the potatoes where clean.

Cooley discloses (col 1, lines 34-45) providing nitrogen to potato plants by dripping liquid urea ammonium nitrate of 28-32% nitrogen onto sides of the potato hill or applying granular urea ammonium nitrate onto sides of the potato hill, and repeating this

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process in 7-10 days later. After this, liquid urea ammonium nitrate may be sent through irrigation water.

Schisler et al disclose (col 8, line 64) sandy clay loam field soil for growing potatoes having an organic matter content of 1.3%.

5 Menzies et al disclose (page 968, second full paragraph) that in greenhouse experiments with alkaline soil, potato scab decreased with increasing pH or lime in direct contrast to scab behavior in acid soils. When adding calcium oxide and using sandy loan soil, control was obtained when the pH was above 8.1. When making soil alkaline
10 with sodium carbonate and treating with calcium compounds, scab control was best with calcium sulfate. Results indicated that scab in alkaline soil corresponded to both calcium and pH, and when the pH is raised above 8.0, control of scab varies with the source of calcium.

When growing potatoes in soil limed to a pH 9.0 as suggested by
15 Blodgett et al, it would have been obvious to apply liquid or granular urea ammonium nitrate to the soil to supply nitrogen as suggested by Cooley when growing potatoes to increase potato yield. The sandy loan soil of Blodgett et al will inherently contain less than 1.7% carbon content as suggested by Schisler et al disclosing sandy clay loam
20 field soil for growing potatoes having an organic matter content of 1.3%. If needed, Menzies et al would have further suggested an alkaline pH soil having less than 1.7% carbon content for potatoes, from disclosing growing potatoes in alkaline sandy loan soil.

A complete copy of the Blodgett et al reference is included with
25 this office action.

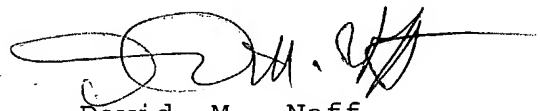
Conclusion

The three month period for response to the office action of 4/16/04 is restarted to begin from the mailing date of this supplemental office action.

5 Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Naff whose telephone number is 571-272-0920. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, 10 the examiner's supervisor, Mike Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) 15 system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private 20 PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David M. Naff
Primary Examiner
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